

Department of Examinations and Assessment

Louisiana State Licensing Board for Contractors

LSLBC

AUGER/DRY AND CONVENTIONAL BORING

Classification Description:

Refers to the construction and installation of pipelines using pipe jacking, auger boring, slurry boring, pipe ramming, jet cutting, utility tunneling, slurry shield, microtunneling, and/or soil compaction.

Auger/Dry and Conventional Boring is a **closed book** examination with 100 multiple-choice questions which are equally weighted.

You will have four hours to complete this examination. A calculator will be provided for use during the examination.

Content Outline

Administrative (Project Site, Cost, Estimating)	13
Safety and Hazard Assessment and Environmental Guidelines	20
Traffic Management and DOT/DOTD Regulations	8
Jack and Bore (Dry)	15
Microtunneling (Slurry, Auger Boring)	10
Wet Bore	7
Obstacle Recognition/One Call Management	10
Means and Methods	17

References

The examination for 7-273 Auger/Dry and Conventional Boring is set at the level of knowledge, skill, and abilities expected for individuals entering the field as contractors for this work. Often the best preparation is training through a mentor or through a company or organizational training program, or a higher educational or vocational educational training program, etc., along with actual experience. Below is only a representative sample of relevant references available on this subject at the time this list was compiled.

Trenchless Construction and Rehabilitation Methods, Fourth Edition; Tom Isely et. al., editors; National Utility Contractors Association; Arlington, VA; 2004.

Trenchless Technology: Pipeline and Utility Design, Construction, and Renewal; Najafi, Mohammad, and Gohkale, Sanjiv; McGraw-Hill; New York; 2005.

Trenchless Technology Piping: Installation and Inspection; Najafi, Mohammad; McGraw-Hill; New York; 2010.

Manual for Controlling and Reducing the Frequency of Pavement Utility Cuts, Final Report, DTFH61-01-C-00024; Federal Highway Administration; Washington, D.C.; 2013. Available at: <https://www.fhwa.dot.gov/utilities/utilitycuts/manual.pdf>

Trenchless Installation of Conduits Beneath Roadways, Synthesis of Highway Practice 242, Transportation Research Board; Iseley, Tom and Gokhale, Sanjiv B.; National Academy Press; Washington, DC; 1977. Available at: http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_syn_242.pdf

Synthesis of Trenchless Technologies; Burden, Lindsay Ivey and Hoppe, Edward J.; Virginia Center for Transportation Innovation and Research; Charlottesville, VA; 2016. Available at: http://www.virginiadot.org/vtrc/main/online_reports/pdf/15-r16.pdf

Use of Trenchless Techniques for the Construction of Underground Infrastructures for Telecommunication Cable Installation, ITU-T Recommendation L.38; International Telecommunication Union, United Nations; Geneva, Switzerland; 1999. Available at: <https://www.itu.int/rec/T-REC-L.38-199909-I/en>

Application of Trenchless Technology at Army Installations, Public Works Technical Bulletin 420-49-10; U.S. Army Corps of Engineers, Washington, DC.; 1999. Available at: https://www.wbdg.org/FFC/ARMYCOE/PWTB/pwtb_420_49_10.pdf

CGA Common Ground Alliance Best Practices 15.0; Common Ground Alliance; Alexandria, VA; 2018. Available at: <http://commongroundalliance.com/damage-prevention/toolkits/best-practices-toolkit>

Louisiana Underground Utilities and Facilities Damage Prevention Law ”; Louisiana Revised Statutes, Title 40, Chapter 8, Part VIII, and Sections 40:1749.11 to 40:1749.27. Available at: http://www.dnr.louisiana.gov/assets/OC/pipe_div/DamagePrevention/Statutes.pdf

Guidelines for Uniform Temporary Marking of Underground Facilities; American Public Works Association; 1999. Available at: <https://www.apwa.net/Library/Resources/Uniform-Color-Code.pdf>

State of Louisiana Department of Transportation and Development, Utility Permit, Available at: http://www.sp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Road_Design/Right-of-Way/Documents/Utility%20Permit.pdf

Louisiana Regulations for Trucks, Vehicles and Loads, 2013, 24th Edition; Louisiana Department of Transportation and Development; Baton Rouge, LA; 2013. <http://perba.dotd.louisiana.gov/welcome.nsf/RegBook2013.pdf>

Louisiana Administrative Code, Title 51, Part XII, Section 247. Available at: <http://www.doa.la.gov/pages/osr/lac/books.aspx>

Louisiana Revised Statutes 32:380 to 387.8. Available at: http://legis.la.gov/legis/Laws_Toc.aspx?folder=106&title=32

Louisiana Commercial Driver’s License Manual; American Association of Motor Vehicle Administrators; Arlington, VA; 2010. Available at: http://dda.edu/LA_CD_L_Manual.pdf

Securing the Load: A Guide to Safe and Legal Transportation of Cargo and Equipment, PPP-75; p. 36; Purdue University Cooperative Extension Service; West Lafayette, IN; 2008. Found at: <https://ag.purdue.edu/soilandwater/securing-the-load-a-guide-to-safe-and-legal-transportation-of-cargo-and-equipment/>

Title 49, Code of Federal Regulations, Subtitle B, Chapter III, Subchapter B, Parts 385, 386, 395, 396; U. S. Government Printing Office; Washington, DC; 1028. Available at: <https://www.fmcsa.dot.gov/advisory-committees/mcsac/publications>

Training Requirements in OSHA Standards, OSHA 2254-09R 2015; pp. 143-237; Occupational Safety and Health Administration; Washington, DC; 2015. Available at: <https://www.osha.gov/Publications/osha2254.pdf>

Fall Protection in Construction; U S. Department of Labor, Occupational Safety and Health Administration; Washington, DC; 2015. Available at: <https://www.osha.gov/Publications/OSHA3146.pdf>

Trenching and Excavation Safety, OSHA 2226-10R 2015; U S. Department of Labor, Occupational Safety and Health Administration; Washington, DC; 2015. Available at: <https://www.osha.gov/Publications/osha2226.pdf>

OSHA Brief. Hazard Communication Standard: Safety Data Sheets; U S. Department of Labor, Occupational Safety and Health Administration; Washington, DC; 2012. Available at: <https://www.osha.gov/Publications/OSHA3514.html>

Personal Protective Equipment; U S. Department of Labor, Occupational Safety and Health Administration; Washington, DC; 2015. Available at: <https://www.osha.gov/Publications/osha3151.pdf>

Permit-Required Confined Spaces; U S. Department of Labor, Occupational Safety and Health Administration; Washington, DC; 2004. Available at: <https://www.osha.gov/Publications/osha3138.pdf>

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Work Zones Hazards Workbook; Construction Safety Council; Hillside, IL; 2008. Available at: https://www.osha.gov/dte/grant_materials/fy08/sh-17795-08/workzone_hazards_awareness_english.pdf

Manual on Uniform Traffic Control Devices, 2009 Edition with Revisions 1 and 2 from 2012; **Part 6;** Federal Highway Administration; Washington, DC; 2012. Available at: <https://mutcd.fhwa.dot.gov/pdfs/2009/part6.pdf>